CLAIMS

We Claim:

1.   A method of enabling backward navigation in a content space, said method comprising:

receiving a first message digest that identifies a first computer file;

receiving a second message digest that identifies a second computer file;

receiving an indication that said second computer file is a later version of said first computer file;

creating a descriptor file that includes said first message digest and said second message digest; and

creating a third message digest of said descriptor file and returning said third message digest to a user, whereby said user may use said third message digest to navigate backward through said content space formed by said first and second computer files.

2.   A method as recited in claim 1 wherein said first message digest is the digest of a first descriptor file that includes a message digest of said first computer file.

3.   A method as recited in claim 1 wherein said second computer file is received by said user or is created by said user.

4.   A method as recited in claim 1 wherein said descriptor file includes meta data concerning said second computer file.

5.   A method of enabling forward navigation in a content space, said method comprising:

receiving a first message digest that identifies a first computer file;

receiving a second message digest that identifies a second computer file;

receiving an indication that said second computer file is a later version of said first computer file;

creating a mapping table that maps said first message digest into said second message digest;

creating a descriptor file that includes said first message digest and an identification of said mapping table; and

creating a third message digest of said descriptor file and returning said third message digest to a user, whereby said user may use said third message digest to navigate forward through said content space formed by said first and second computer files.

6.   A method as recited in claim 5 wherein said first message digest is the digest of a first descriptor file that identifies said first computer file, wherein said second message digest is the digest of a second descriptor file that identifies said second computer file.

7.   A method as recited in claim 6 wherein said first and second descriptor files include meta data concerning said first and second computer files, respectively.

8.   A method as recited in claim 5 wherein said second computer file is received by said user or is created by said user.

9.   A method as recited in claim 5 wherein said descriptor file includes meta data.

10.   A method as recited in claim 5 wherein said descriptor file includes said mapping table.

11.   A method as recited in claim 5 wherein said descriptor file includes a message digest that identifies said mapping table.

12.   A method of enabling forward navigation in a content space, said method comprising:

receiving a first message digest that identifies a first computer file;

receiving a second message digest that identifies a second computer file, said second computer file indicated as being a later version of said first computer file;

creating a mapping table that maps said first message digest into said second message digest;

returning said first message digest and an identification of said mapping table to a user; and

indicating to said user that said first message digest and said mapping table enable forward navigation through said content space formed by said first and second computer files, whereby said user may invoke a session using said first message digest and said mapping table to forward navigate through said content space.

13.   A method as recited in claim 12 wherein said first message digest is the digest of a first descriptor file that identifies said first computer file, wherein said second message digest is the digest of a second descriptor file that identifies said second computer file.

14. A method as recited in claim 13 wherein said first and second descriptor files include meta data concerning said first and second computer files, respectively.

15. A method as recited in claim 12 wherein said second computer file is received by said user or is created by said user.

16. A method as recited in claim 12 wherein said identification of said mapping table is a message digest of said mapping table.

17. A method of enabling circular navigation in a content space, said method comprising:

identifying first and second computer files, said first computer file including a second message digest that identifies said second computer file;

creating a first message digest that identifies said first computer file;

creating a version of said second computer file that includes said first message digest;

creating a third message digest of said second computer file version;

creating a mapping table that maps said second message digest into said third message digest;

returning said first message digest and an identification of said mapping table to a user, whereby said user may navigate between said first and second computer files.

18. A method as recited in claim 17 further comprising:

indicating to said user that said first message digest and said mapping table enable circular navigation in said content space that includes said first and second computer

files, whereby said user may invoke a session using said first message digest and said mapping table to circular navigate in said content space.

19.   A method as recited in claim 18 wherein said identification of said mapping table is a message digest of said mapping table.

20.   A method as recited in claim 17 further comprising:

creating a descriptor file that includes said first message digest and said identification of said mapping table; and

creating a fourth message digest that identifies said descriptor file and returning said fourth message digest to said user, wherein said first message digest and said identification of said mapping table are returned to said user indirectly via said fourth message digest, whereby said user may navigate between said first and second computer files starting with said fourth message digest.

21.   A method as recited in claim 20 wherein said identification of said mapping table is the mapping table itself or a message digest that identifies said mapping table.

22.   A method as recited in claim 17 wherein said first, second and third message digests are each digests of a descriptor file that identifies said first, second and second version computer files, respectively

23.   A method as recited in claim 22 wherein said descriptor files include meta data concerning their respective computer files.

24.   A method as recited in claim 17 wherein said second computer file is received by said user or is created by said user.

25.   A method as recited in claim 19 wherein said descriptor file includes meta data.